MANUAL DE SERVIÇO

LCD TV

Model No.: HBTV-22D02FD

Chassis: MSD209GL

ATENÇÃO

Este manual técnico é de uso exclusivo da Rede Autorizada H-Buster. Não existem peças ou partes que possam ser reparados pelo consumidor final, sob riscos de choque elétrico, causando ferimentos graves.
É proibida a distribuição, comercialização ou cópia deste documento. Sujeito a modificações.

CONTENTS

Chapter 1.General Information

1-1. General Guidelines

When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.

After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.

After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1) Leakage Current Cold Check
2) Leakage Current Hot Check
3) Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive

1-2. Important Notice

1-2-1. Follow the regulations and warnings

Most important thing is to list up the potential hazard or risk for the service personnel to open the units and disassemble the units. For example, we need to describe properly how to avoid the possibility to get electrical shock from the live power supply or charged electrical parts (even the power is off).

This symbol indicates that high voltage is present inside.It is dangerous to make any kind of contact with any inside part of this product.

This symbol indicates that there are important operating and maintenance instructions in the literture accompanying the appliance.

1-2-2. Be careful to the electrical shock

To prevent damage which might result in electric shock or fire, do not expose this TV set to rain or excessive moisture. This TV must not be exposed to dripping or splashing water, and objects filled with liquid, such as vases, must not be placed on top of or above the TV.

1-2-3. Electro static discharge (ESD)

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. The following techniques should be used to help reduce the incidence of component damage caused by electros static discharge (ESD).

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid-state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the ncidence of component damage caused by static by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

1-2-4. About lead free solder (PbF)

This product is manufactured using lead-free solder as a part of a movement within the consumer products industry at large to be environmentally responsible. Lead-free solder must be used in the servicing and repairing of this product.

1-2-5. Use the genewing parts (specified parts)

Special parts which have purposes of fire retardant (resistors), high-quality sound (capacitors), low noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.

Safety Component

● Components identified by mark have special characteristics important for safety.

1-2-6. Safety check after repairment

Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the positions which are deteriorated around the serviced places serviced or not. Check the insulation between the antenna terminal or external metal and the AC cord plug blades. And be sure the safety of that.

General Servicing Precautions

1. Always unplug the receiver AC power cord from the AC power source before:
   a. Removing or reinstalling any component, circuit board module or any other receiver assembly.

b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.

CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc) equipped with a suitable high voltage probe.

Do not test high voltage by "drawing an arc".

3. Do not spray chemicals on or near this receiver or any of its assemblies.

4. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable non-abrasive applicator; 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength).

CAUTION: This is a flammable mixture.
Unless specified otherwise in this service manual, lubrication of contacts is not required.
Capacitors may result in an explosion hazard.

5. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.

6. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.

7. Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.

Always remove the test receiver ground lead last. Capacitors may result in an explosion hazard.

8. Use with this receiver only the test fixtures specified in this service manual.

CAUTION: Do not connect the test fixture ground strap to any heat sink in this receiver.

9. Remove the antenna terminal on TV and turn on the TV.

10. Insulation resistance between the cord plug terminals and the eternal exposure metal should be more than Mohm by using the 500V insulation resistance meter.

11. If the insulation resistance is less than M ohm, the inspection repair should be required. If you have not the 500V insulation resistance meter, use a Tester. External exposure metal: Antenna terminal Headphone jack.

12. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

13. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.

14. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

15. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it.
(Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).

16. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

17. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

1-2-7. Ordering Spare Parts

Please include the following informations when you order parts. (Particularly the Version letter)

1. Model number, serial number and software version
The model number and serial number can be found on the back cover of each product. Software version can be found in the *Spare Parts List*.

2. Spare part No. and description
Spare part No. and description can be found in the *Spare Parts List*.

1-2-8. Photo used in this manual

The illustration and photos used in this Service Manual may not base on the final design of products, which may differ from your products in some way.

1-3. How to Read this Service Manual

1-3-1. Using icons:

Icons are used to attract the attention of the reader to specific information. The meaning of each icon is described in the table below:

Note:

A “note” provides information that is not indispensable, but may nevertheless be valuable to the reader, such as tips and tricks.

Caution:

A “caution” is used when there is danger that the reader, through incorrect manipulation, may damage equipment, loose data, get an unexpected result or has to restart(part of) a procedure.

Warning:

A “warning” is used when there is danger of personal injury.

Reference:

A “reference” guides the reader to other places in this binder or in this manual, where he/she will find additional information on a specific topic.

Chapter 2. Specification

2-1. Specification list

Model	**HBTV-22D02FD**
Screen Size	22 inches
Aspect Ratio	16:9
Resolution	1920*1080
Response Time (ms)	5ms
Angel of View	H:170/V:160
Color Display	16.7M
No. of Preset Channels	181
OSD Language	English/Brazil Portuguese
Color System	PAL/NTSC/ISDB-T
Audio System	M/N
Audio Output Power (Built-in) (W)	3W*2
Audio Output Power (outer) (W)	No
Total Power Input (W)	35W
Voltage Range (V)	AC100V~240V
Power Frequency (Hz)	50~60Hz
Time of Sleep Timer (MINS)	240Min
Net Weight (KG)	3.17
Gross Weight (KG)	3.75
Net Dimension (MM)	528/160/388
Packaged Dimension (MM)	620/120/445

2-2. External pictures

Front Side

Back Side

Chapter 3. Disassemble and Assemble

3-1. Remove the Stand

1. Lay down the unit so that back cover faces upward.

picture 1

2. Remove the 1 screw from the back cover which are indicated with the number in the picture above.

3. Remove the stand *(See picture 2).*

picture 2

3-2. Remove the Back Cover

1. Remove the 2 and 3 screws indicated in picture 1.

2.Uncover the equipment, the FFC wire and LVDS wire are shown below*(See picture 3).* Remove the FFC wire and LVDS wire from the panel.

picture 3

3. Then remove the back cover from the unit. *(See picture 4).*

picture 4

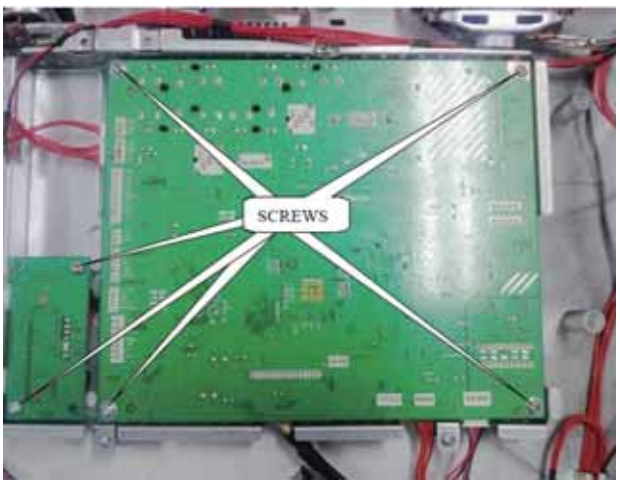
3-3. Remove the Main Board & Small Board

There are four boards in the machine:
A:Remote Control Board;B:Main Board;C:LED Driver Board ;D:Keypad Board (See picture 5*).*

picture 5

3-3-1. Remove the Mainboard and the Driver Board

Remove the six screws indicated in picture 6.
Take out the mainboard and the drive board.



picture 6

3-3-2.Remove the Remote Control Board

Remove the screw indicated in picture 7.
Take out the mainboard and the drive board.

picture 7

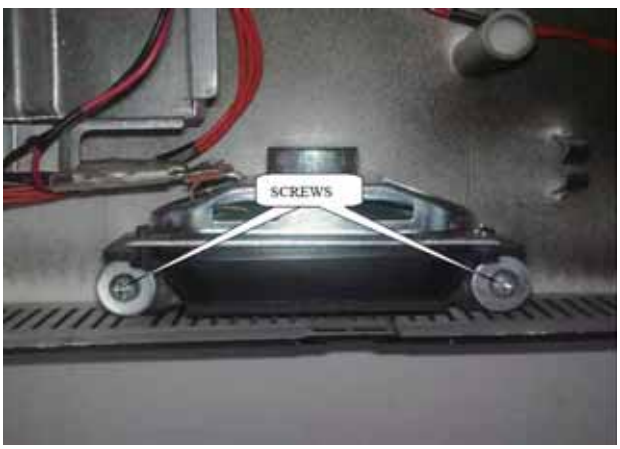
3-3-3. Remove the Keypad Board

There's no screw in this board,pull the keypad board out from Front Cabinet directly.

picture 8

3-3-4. Remove the Speakers

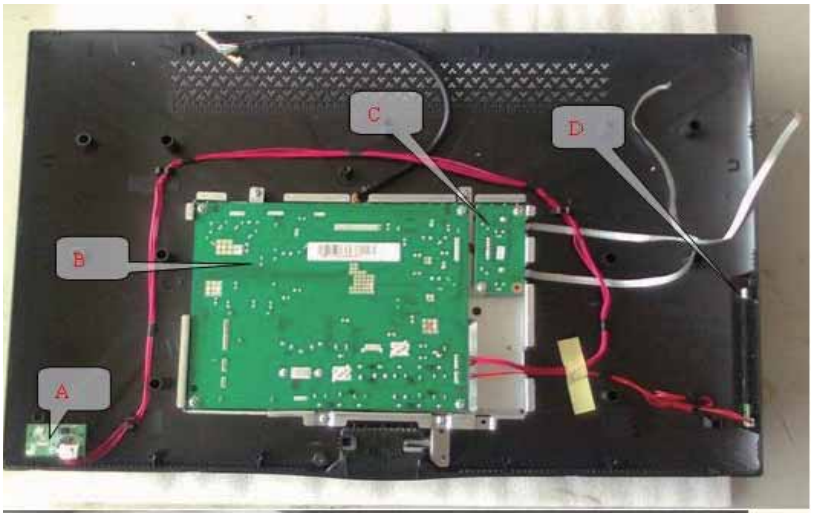
Remove the two screws indicated in picture 9
Take out one speaker,then another as this.



picture 9

Chapter 4. Location of Controls and Components

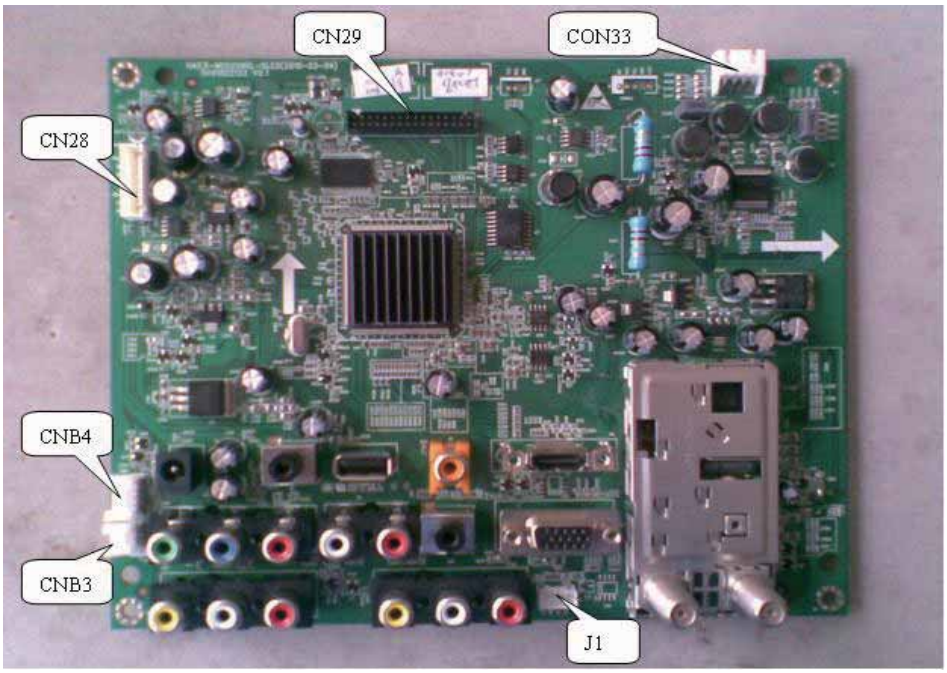
4-1. Board Location



No.	Parts number	Description
A Board	410262	PCI Sensor Remoto
B Board	410253	Placa Principal
C Board	410254	PCI Inversora LCD
D Board	410260	PCI do Teclado

A PLACA PRINCIPAL SOMENTE PODE SER SOLICITADA ATRAVÉS DO SUPORTE TÉCNICO !!!

4-2. Main Board (Placa Principal)



4-2-1. Function Description:

Main Board
Process signal which incept from exterior equipment then translate into signal that panel can display.

4-2-2. Connector definition

Main board connector

CNB4	
Pin number	**Signal name**
1	+5V
2	IR
3	RED
4	GREEN
5	GND

CNB3	
Pin number	**Signal name**
1	GND
2	KEY1
3	KEY2

J1	
Pin number	**Signal name**
1	+5V
2	GND
3	RX
4	TX

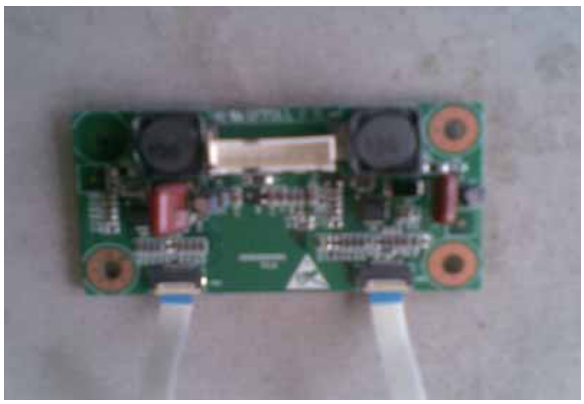
CN28	
Pin number	**Signal name**
1	PW_ON
2	GND
3	GND
4	ADJ
5	PB-ON
6	+12V
7	+12V

CON33	
Pin number	**Signal name**
1	R+
2	R-
3	L-
4	L+

CN29	
Pin number	**Signal name**
1	VDD
2	VDD
3	VDD
4	GND
5	GND
6	GND
7	RXO0-
8	RXO0+
9	RXO1-
10	RXO1+
11	RXO2-
12	RXO2+
13	GND
14	GND
15	RXOC-
16	RXOC+
17	RXO3-
18	RXO3+
19	RXE0-
20	RXE0+
21	RXE1-
22	RXE1+
23	RXE2-
24	RXE2+
25	GND
26	GND
27	RXEC-
28	RXEC+
29	RXE3-
30	RXE3+
31	GND
32	GND

Notes:
CNB4:Remote Control connector ; to A Board
CNB3:Keypad connector ; to D Board
J1:Upgrade connector
CN28:Driver connector ; to C Board
CON33:Speaker connector ; to Speaker
CN29:LVDS connector ; to Panel

4-3. Driver Board



Connector definition:

CN1	Signal name
1	PW_ON
2	GND
3	GND
4	ADJ
5	PB-ON
6	+12V
7	+12V

Function description:To supply power for Panel.

4-4. Remote Control Board

Connector definition:

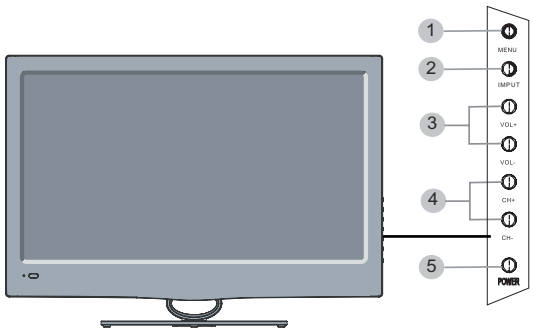
CN1	Signal name
1	+5V
2	IR
3	RED
4	GREEN
5	GND

Function description:receive remote control signal

4-5. LED Panel

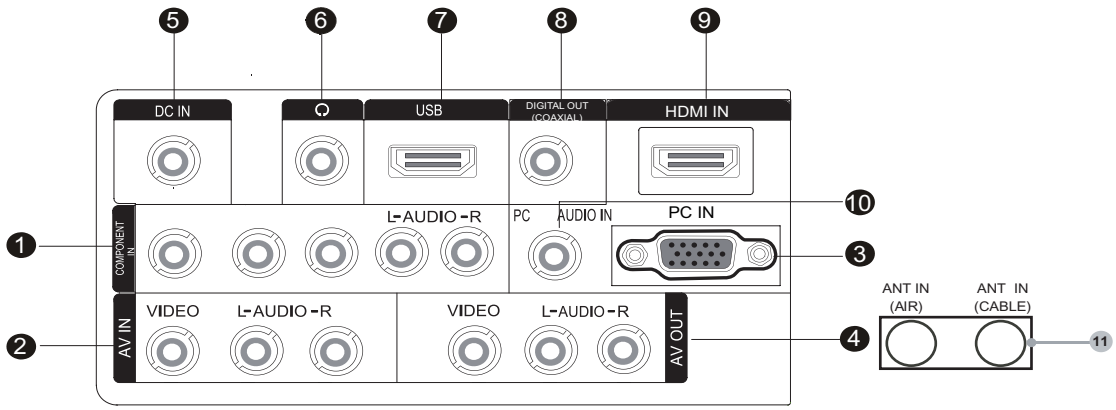
Chapter 5. Operation Instructions

5-1. Front Panel Controls



1. MENU :Menu display
2. INPUT :All input source display and OK con firm.
3. VOL(+/-) :Volume increase and decrease, menu set and entry
4. CH(+/-) :Program minus and plus, menu options
5. POWER :Is used to activate the display or return to standby mode.

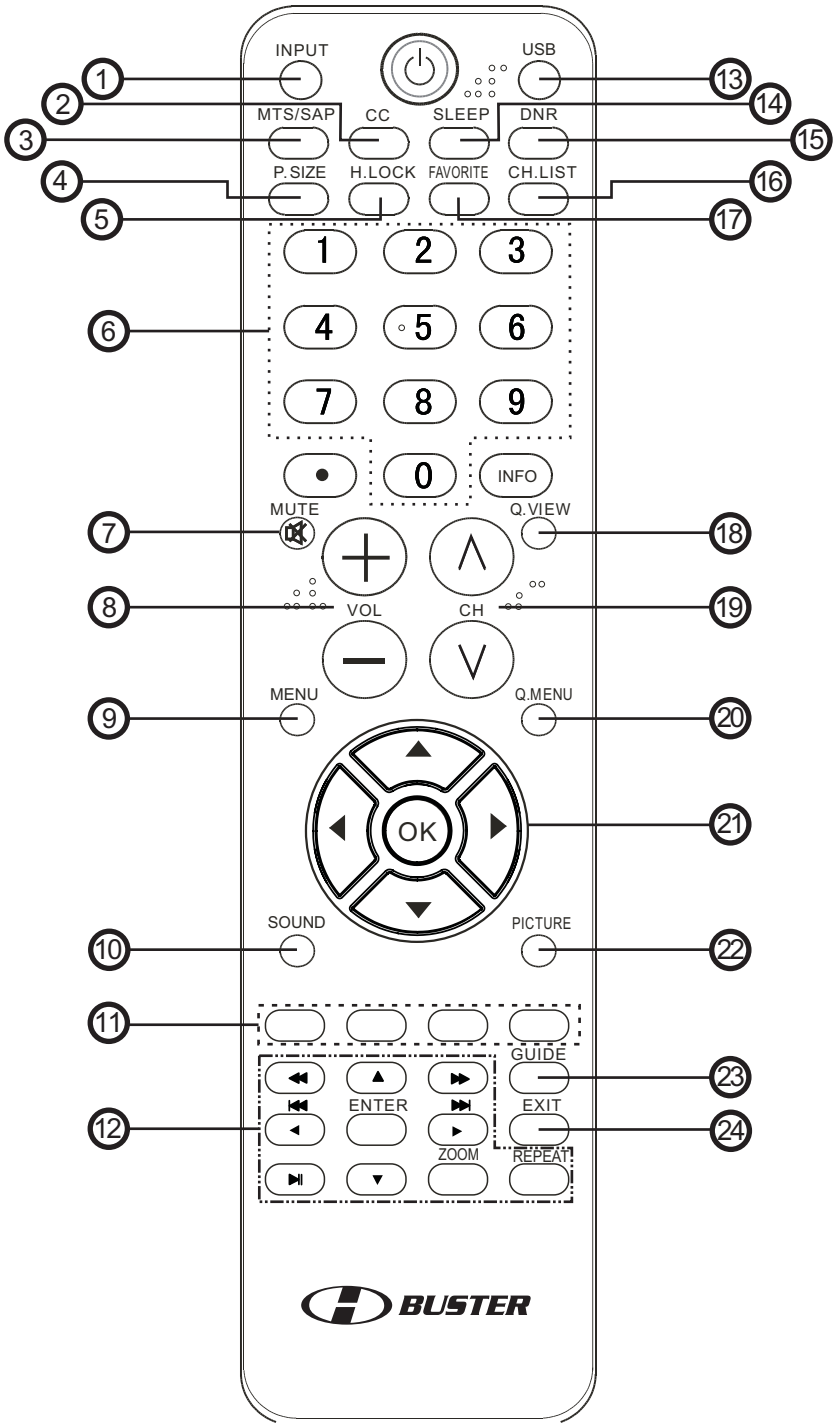
5-2. BACK Panel Controls



①	**COMPONENT In**	Connect a component Video/Audio device to these jacks
②	**AV IN**	Connect Video/Audio out from an Video/Audio device to these jacks
③	**PC IN**	Connect the monitor output connector from a PC to the jack
④	**AV OUT**	Video/Audio output terminal
⑤	**DC IN**	Connect the monitor output connector from a DC to the jack

⑥	**Headphone**	Headphone audio output terminal.
⑦	**USB**	Connect a USB flash drive to view PPEG2 videos,JPEG images or listen to MP3 songs.
⑧	**DIGITAL OUT(COAXIAL)**	Digital/Coaxial output terminal
⑨	**HDMI**	Connect a signal to HDMI
⑩	**PC/DVI AUDIO**	Connect a PC/DVI Audio device to these jacks
⑪	**ANT IN**	Connect a CATV or AIR Antenna cable

5-3. Remote Control



Teclas do Controle Remoto

1. Input: Pressione para selecionar a fonte de sinal desejada.

2. CC: Pressione para habilitar ou desabilitar o closed caption.

3. MTS/SAP: Pressione para alternar entre mono, estéreo e SAP.

4. P.Size: Pressione para alterar o tamanho da imagem.

5. H.Lock: Pressione para acessar o menu de bloqueios.

6. Teclado numérico: Utilize para selecionar o canal desejado.

7. Mute: Pressione para cortar temporariamente o som.

8. Teclas de volume: Pressione para aumentar ou diminuir o volume.

9. Menu: Pressione para acessar o menu principal.

10. Sound: Pressione para selecionar o modo pré-ajustado de áudio.

11. Teclas coloridas: Acionam ou acessam funções específicas nos menus.

12. Teclas de navegação USB: Utilize para navegar nos menus e arquivos no modo USB.

13. USB: Pressione para ter acesso direto a fonte de entrada USB.

14. Sleep: Pressione para selecionar em quanto tempo o televisor irá se desligar.

15. DNR: Pressione para habilitar ou desabilitar o redutor digital de ruídos.

16. CH.List: Pressione para acessar a lista de canais disponíveis.

17. Favorite: Pressione para acessar a lista de canais favoritos.

18. Q.View: Pressione para retornar ao último canal selecionado.

19. Teclas CH: Pressione para trocar de canal.

20. Q.Menu: Pressione para ter acesso ao menu rápido.

21. Teclas de navegação: Utilize para navegar pelos menus e funções do televisor.

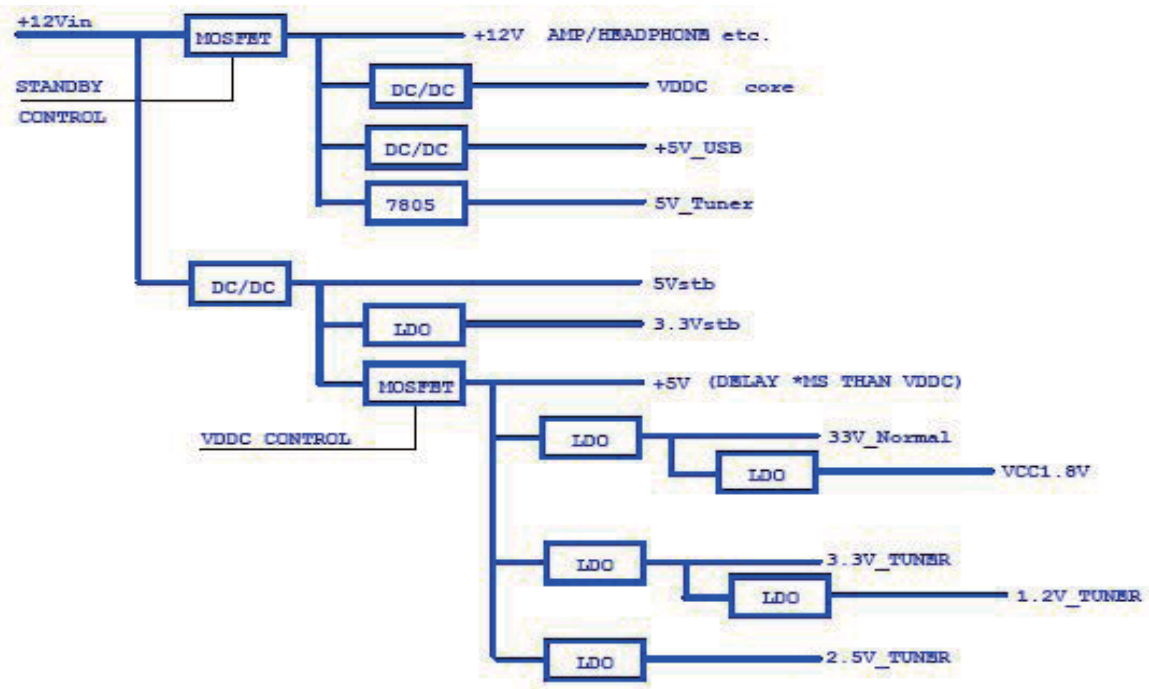
22. Picture: Pressione para selecionar o modo pré-ajustado de imagem.

23. Guide: Pressione para ter acesso ao guia eletrônico de programação.
(apenas em TV digital).

24. Exit: Pressione para sair dos menus ou funções do televisor.

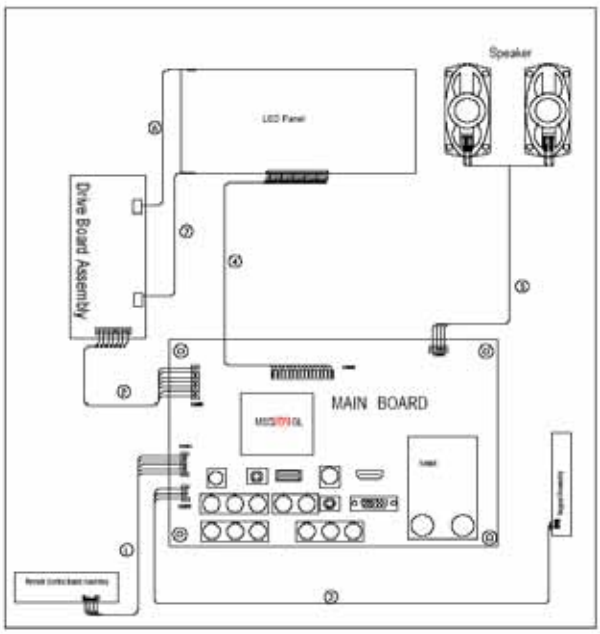
Chapter 6. Electrical Circuit

6-1. Power Tree



6-2. Wiring Connection Diagram

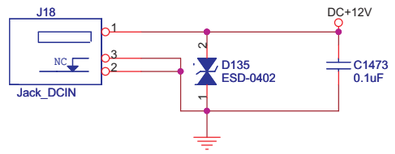
Customer model	HBTV-22D02FD
Factory model	LE22T3
Serial No.	DZ0XG0E0600
Job Order No.	BRAZILHBTV-22D02FD-M
Country	Brazil
Customer	HBUSTER
Brand	HBUSTER

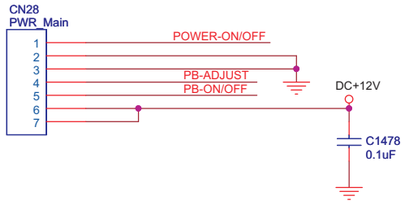


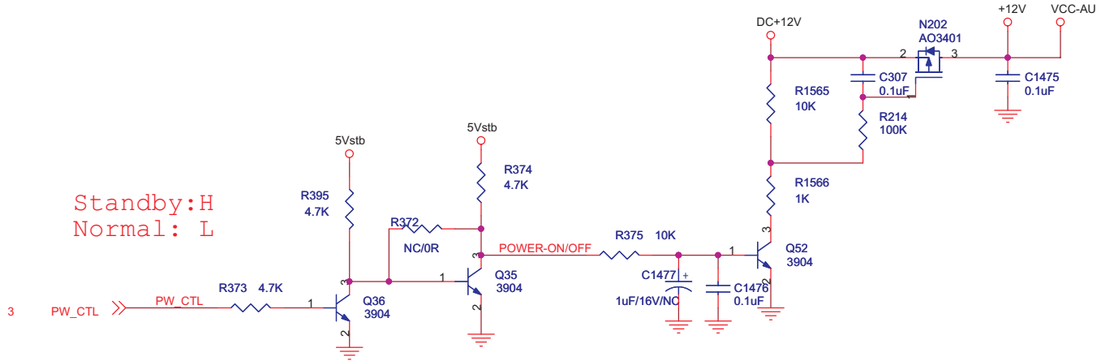
No.	Spare Part No.	Description
①	0300401043E	Connection Wire
②	0300403459F	Connection Wire
③	0300402944	Connect Wire
④	0300405106A	LVDS Wire
⑤	0300403647G	Speaker Wire
⑥	0300402947	FFC Wire
⑦	0300402947A	FFC Wire

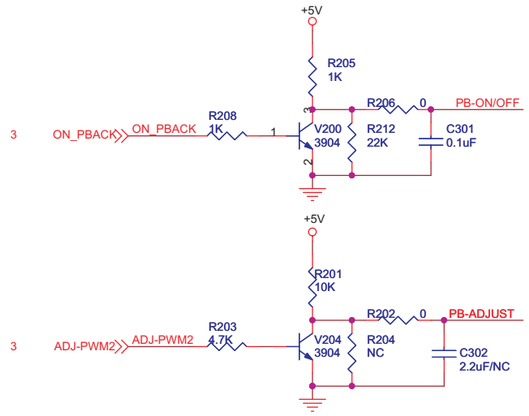
6-3. Circuit Diagram

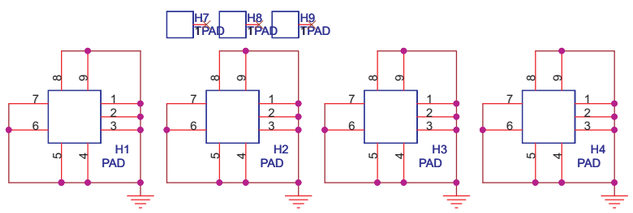
MAIN POWER

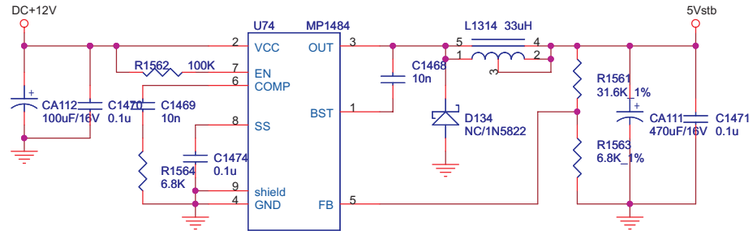


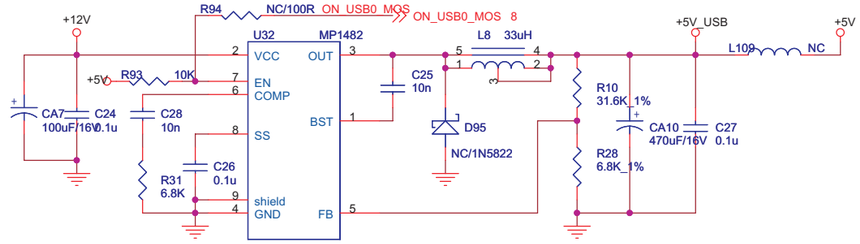


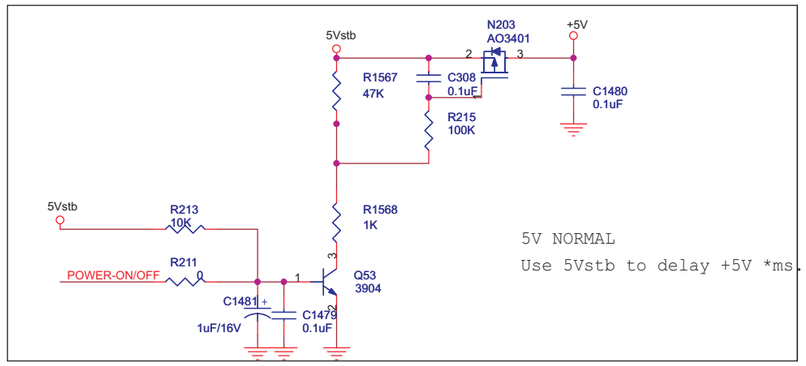


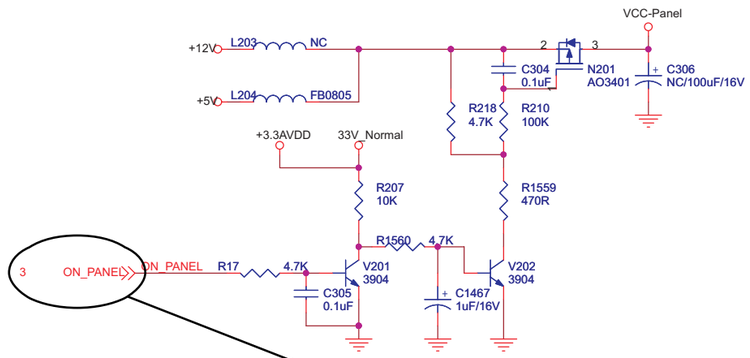








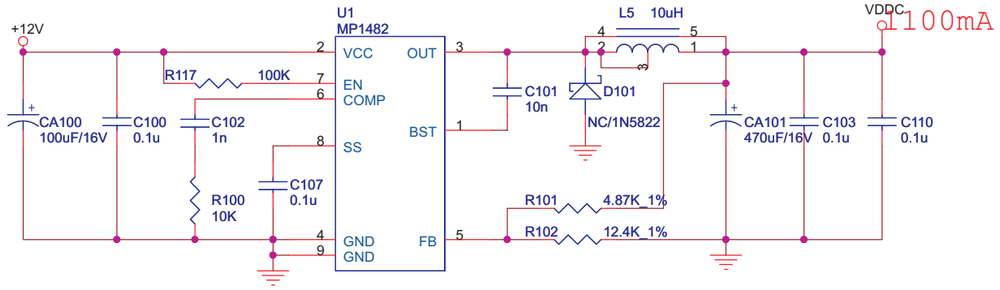


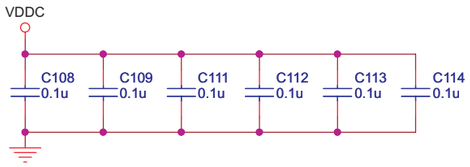


O número indicado ao lado do nome do sinal indica de (ou para qual) página está indo esse sinal (na indicação acima, o sinal está "vindo" do esquema 3/9 (veja indicação ao lado).

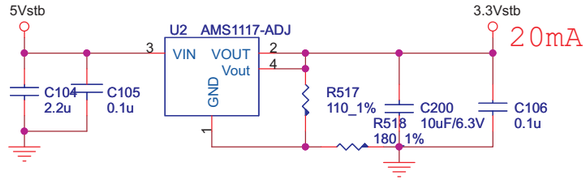
01	07/06/10		Liberação inicial		
Revisão	Data	Documento	Descrição		
Formato A3		Elaborado por: Eber Silva	Revisado por: Eduardo Macedo	Aprovado por: Thomas Wang	Modificado por:
Escala S/E	Dimensão mm		Tol.não especificada	Página 1/9	Código matriz
PCI principal HBTV-22D02FD					Código sistema

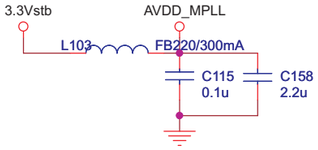
BUSTER®



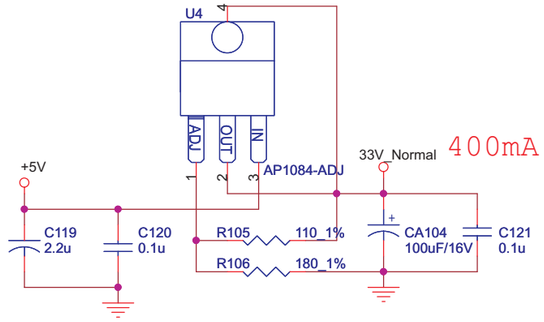


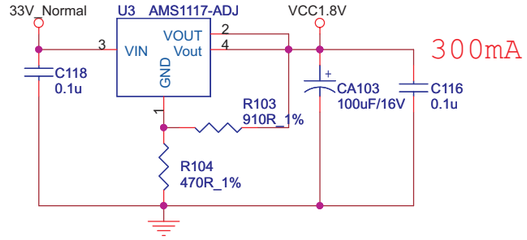
3.3V Power_Standby only for AVDD_MPLL and IR SAR,CEC.GPIO.RST

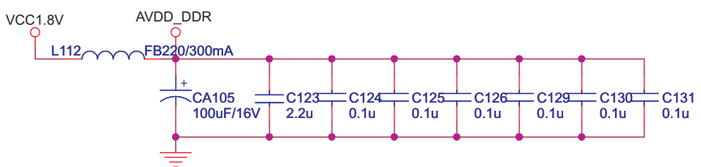


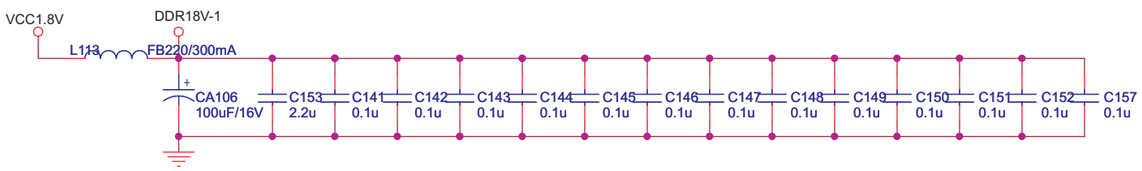


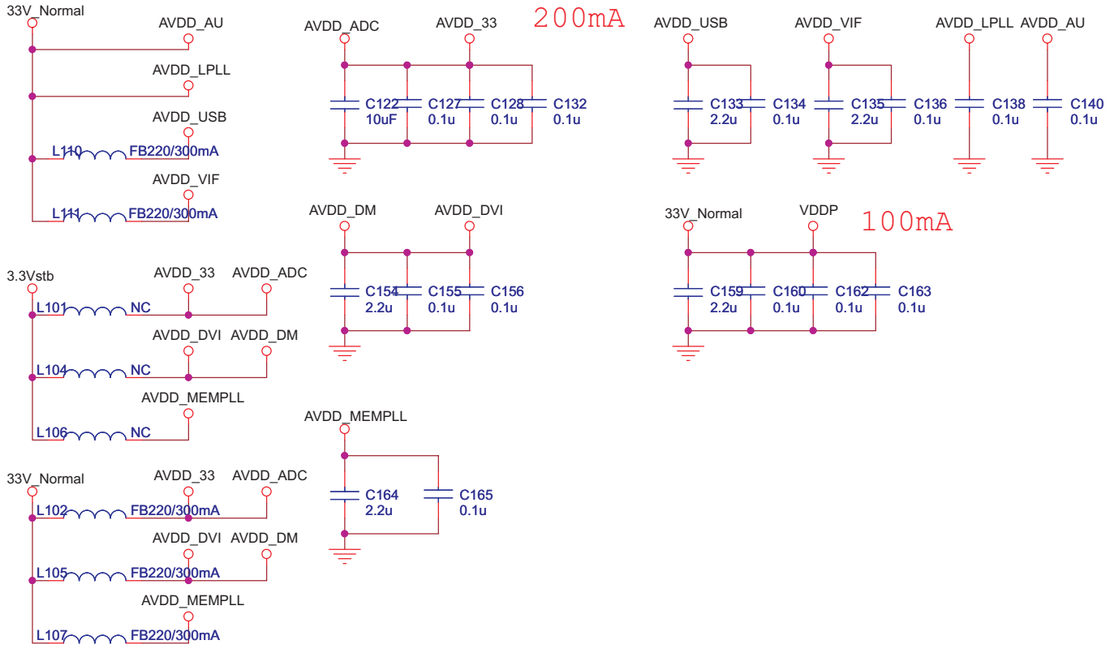
3.3V Power_Normal





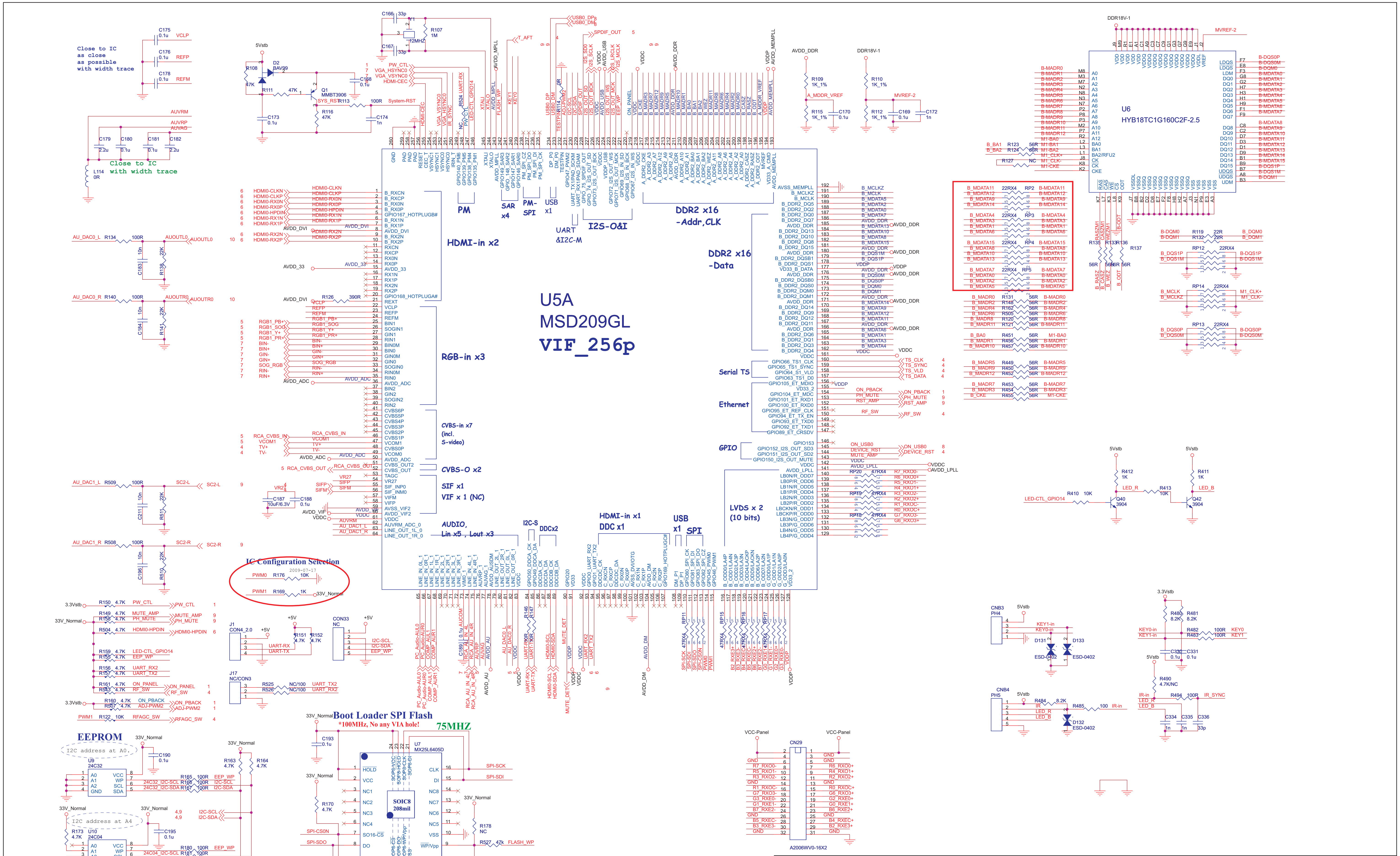






01	07/06/10		Liberação inicial	
Revisão	Data	Documento	Descrição	

Formato A3		Elaborado por: Éber Silva	Revisado por: Eduardo Macedo	Aprovado por: Thomas Wang	Modificado por:
Escala S/E	Dimensão mm	Tol.não especificada	Página 2/9	Código matriz	
PCI principal HBTV-22D02FD				Código sistema	BUSTER

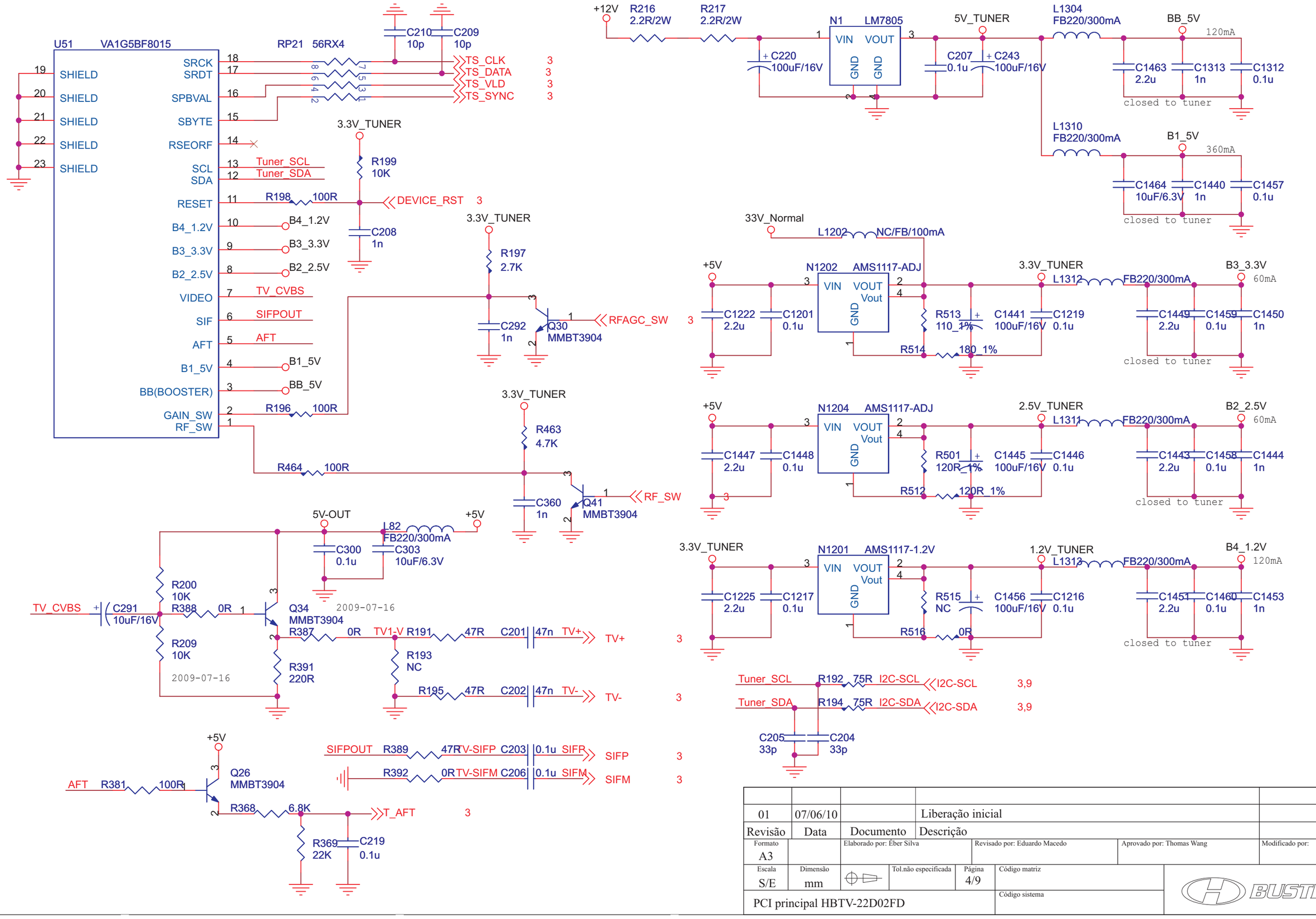


01	07/06/10		Liberação inicial
Revisão	Data	Documento	Descrição

Formato A3	Elaborado por: Éber Silva	Revisado por: Eduardo Macedo	Aprovado por: Thomas Wang	Modificado por:

Escala S/E	Dimensão mm	Tol.não especificada	Página 3/9	Código matriz
PCI principal HBTV-22D02FD				Código sistema

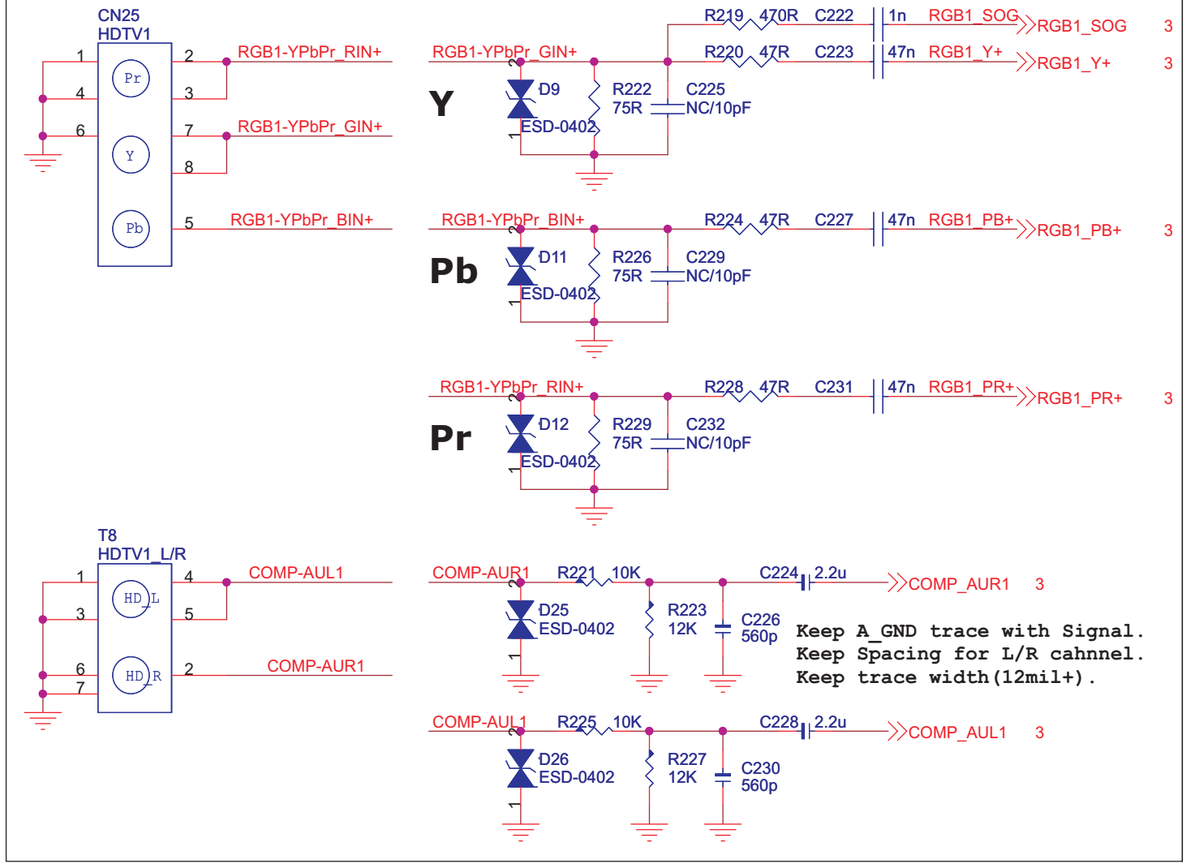
BUSTER



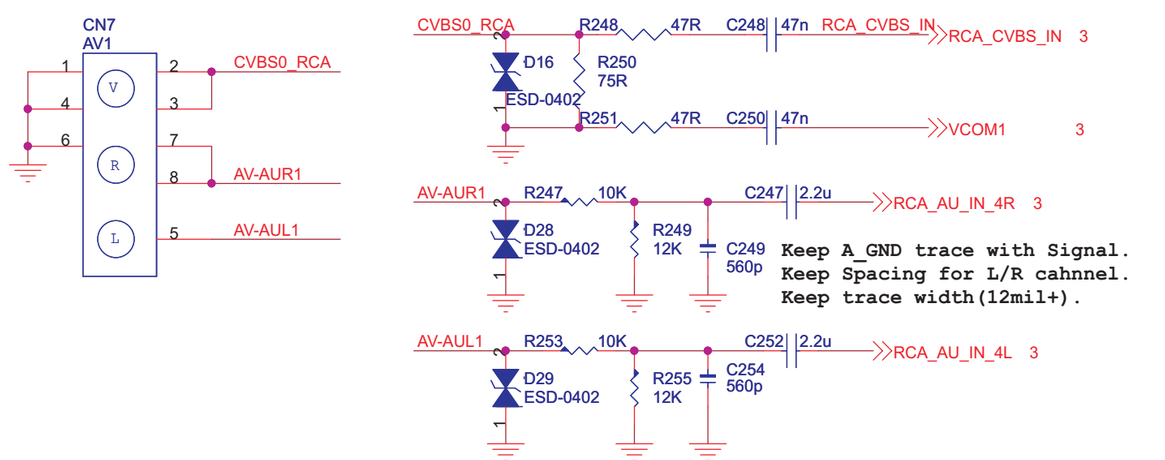
01	07/06/10		Liberação inicial	
Revisão	Data	Documento	Descrição	

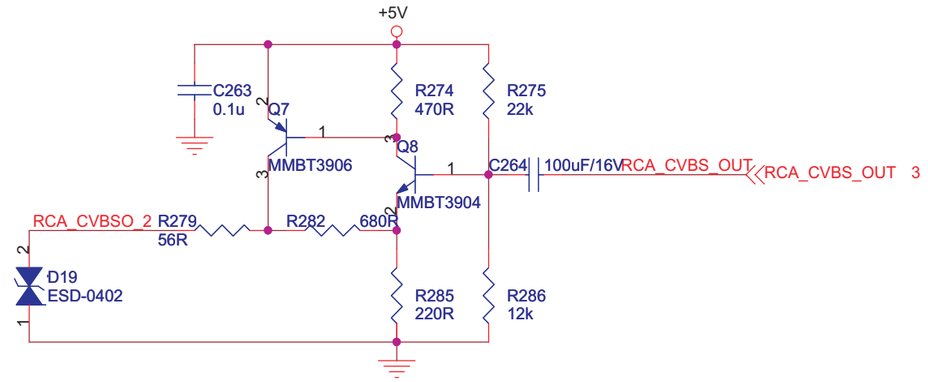
Formato A3		Elaborado por: Éber Silva	Revisado por: Eduardo Macedo	Aprovado por: Thomas Wang	Modificado por:
Escala S/E	Dimensão mm	Tol.não especificada	Página 4/9	Código matriz	BUSTER
PCI principal HBTV-22D02FD				Código sistema	

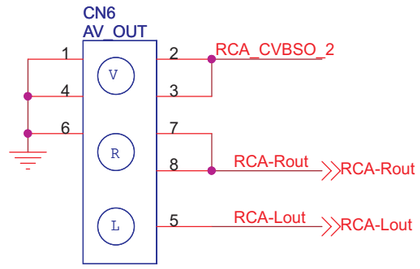
YPbPr 1

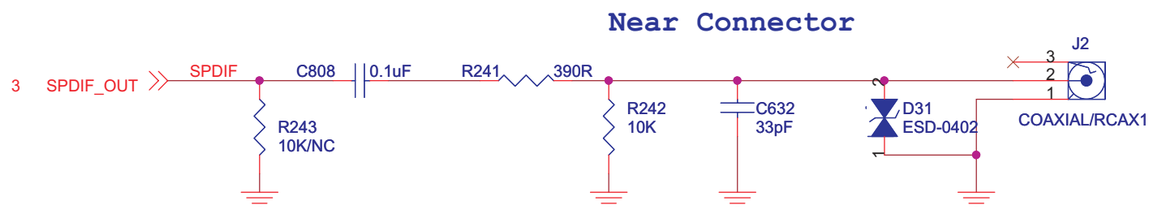


AV 1



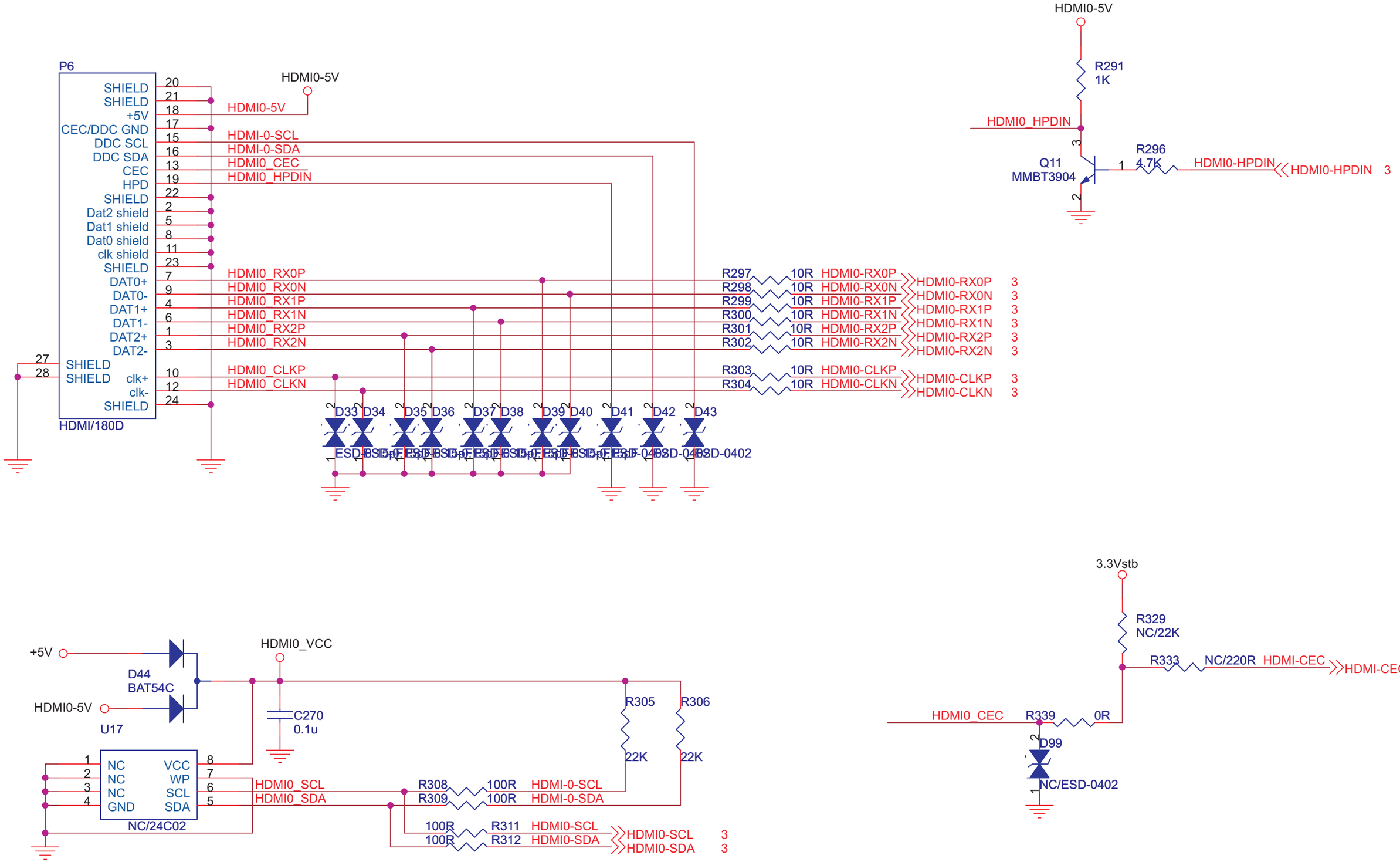






01	07/06/10		Liberação inicial	
Revisão	Data	Documento	Descrição	

Formato A3		Elaborado por: Éber Silva	Revisado por: Eduardo Macedo	Aprovado por: Thomas Wang	Modificado por:
Escala S/E	Dimensão mm	Tol.não especificada	Página 5/9	Código matriz	
PCI principal HBTV-22D02FD				Código sistema	BUSTER



01	07/06/10		Liberação inicial	
Revisão	Data	Documento	Descrição	

Formato A3		Elaborado por: Éber Silva	Revisado por: Eduardo Macedo	Aprovado por: Thomas Wang	Modificado por:
Escala S/E	Dimensão mm	Tol.não especificada	Página 6/9	Código matriz	
PCI principal HBTV-22D02FD				Código sistema	

BUSTER

P8
VGA

VGA-TX
D84
ESD-0402

VGA-RX
VGA5V
D85
ESD-0402

R
G
B

R346 75R
R347 75R
R348 75R

R342 47R C272 47n RIN+ >> RIN+ 3
R343 47R C273 47n GIN+ >> GIN+ 3
R344 47R C274 47n BIN+ >> BIN+ 3
R345 470R C275 1n SOG_RGB >> SOG_RGB 3

R-
G-
B-

R349 75R C276 47n RIN- >> RIN- 3
R350 75R C277 47n GIN- >> GIN- 3
R351 75R C278 47n BIN- >> BIN- 3

D57 NC
D58 NC
D71 ESD-0402
D72 ESD-0402
D73 ESD-0402

VGA_HSYNC
VGA_VSYNC

R352 100R >> VGA_HSYNC0 3
R353 100R >> VGA_VSYNC0 3

D74 ESD-0402
D75 ESD-0402

5V_VGA

R354 4.7K
R355 4.7K
R356 4.7K
R357 4.7K

DDC_SCL_D
DDC_SDA_D

R358 100R UART-RX >> UART-RX 3
R359 100R UART-TX >> UART-TX 3

R360 100R
R361 100R

VGA-TX R362 100R
VGA-RX R363 100R

+5V
D79
NC/BAT54C
VGA5V

5V_VGA
C338 0.1u
U19 NC/24C02
NC NC NC GND
VCC VCLK SCL SDA
VGA-SCL
VGA-SDA

5 T5
PJ_391HA

R364 10K
R365 10K

C279 2.2u >> PC_Audio-AUR0 3
C280 2.2u >> PC_Audio-AUL0 3

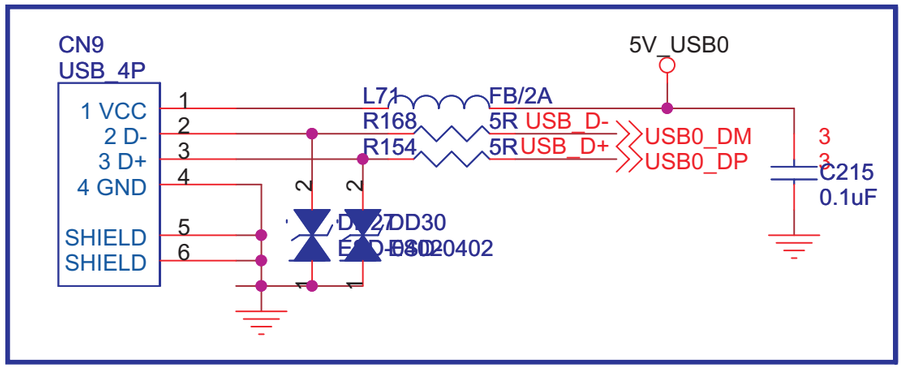
D80 ESD-0402
D81 ESD-0402

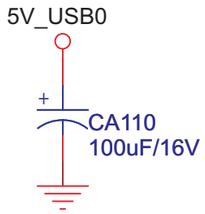
R366 12K
R367 12K
C281 560p
C282 560p

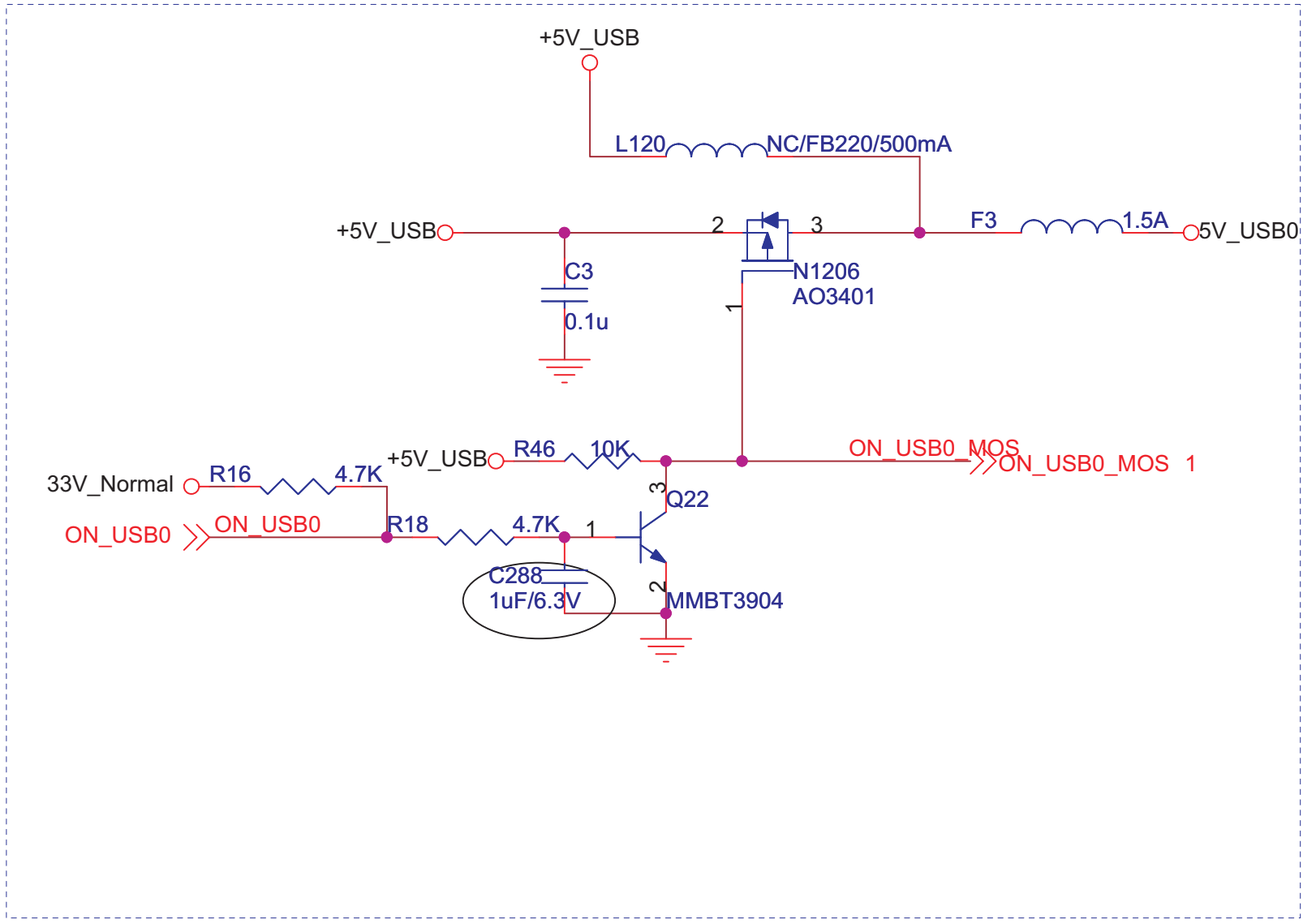
01	07/06/10		Liberação inicial	
Revisão	Data	Documento	Descrição	

Formato A3		Elaborado por: Éber Silva	Revisado por: Eduardo Macedo	Aprovado por: Thomas Wang	Modificado por:
Escala S/E	Dimensão mm	Tol.não especificada	Página 7/9	Código matriz	
PCI principal HBTV-22D02FD				Código sistema	BUSTER

USB



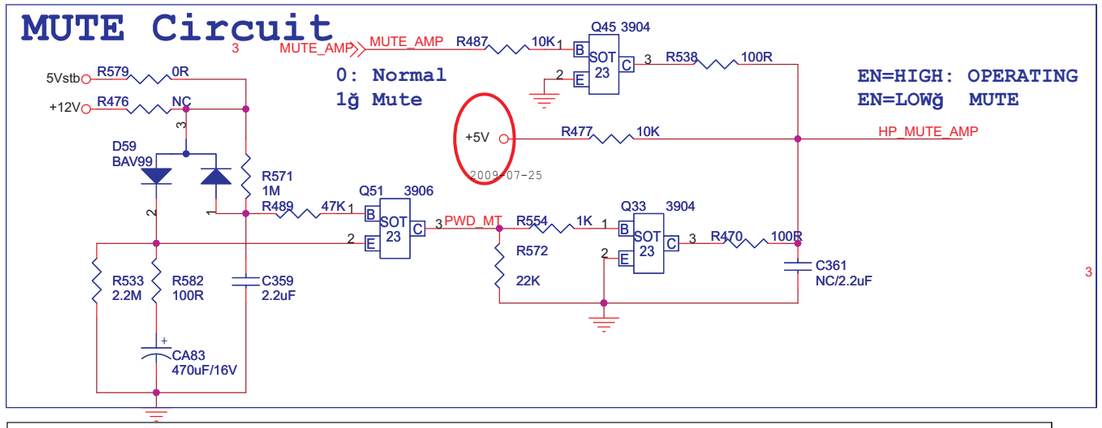




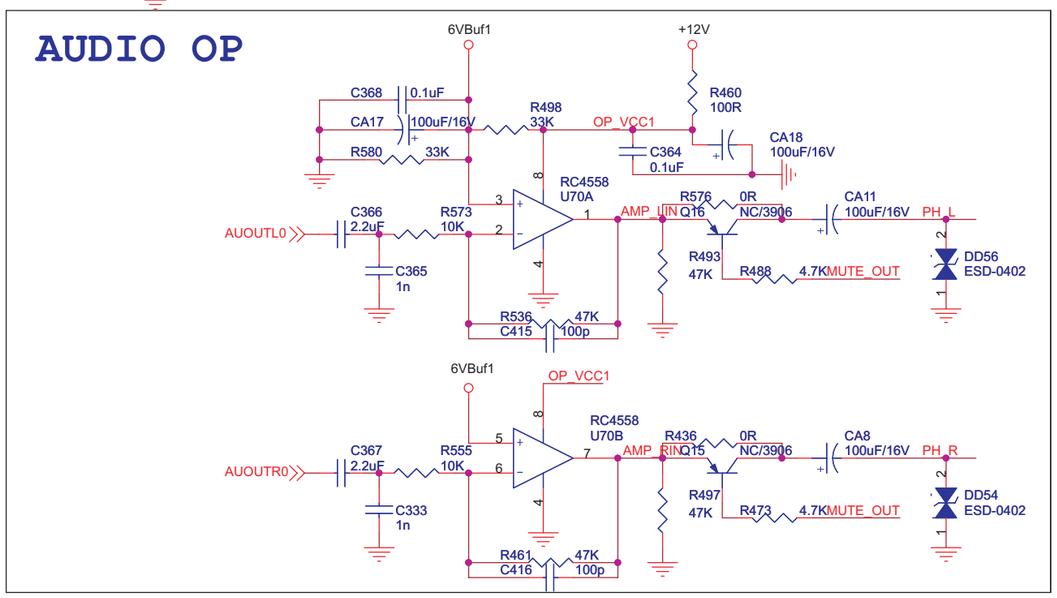
01	07/06/10		Liberação inicial	
Revisão	Data	Documento	Descrição	

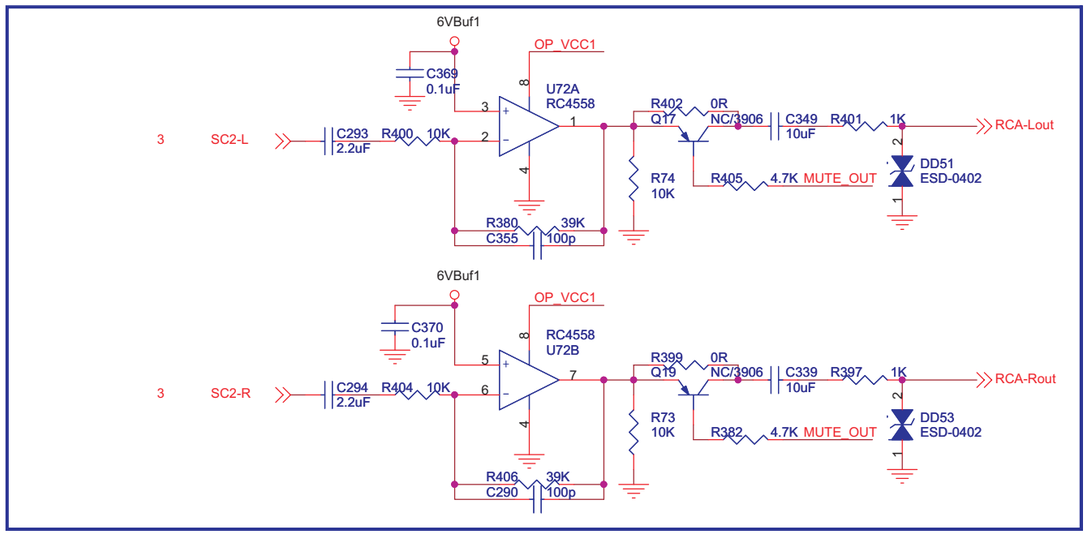
Formato A3		Elaborado por: Éber Silva	Revisado por: Eduardo Macedo	Aprovado por: Thomas Wang	Modificado por:
Escala S/E	Dimensão mm	Tol.não especificada	Página 8/9	Código matriz	
PCI principal HBTV-22D02FD				Código sistema	BUSTER®

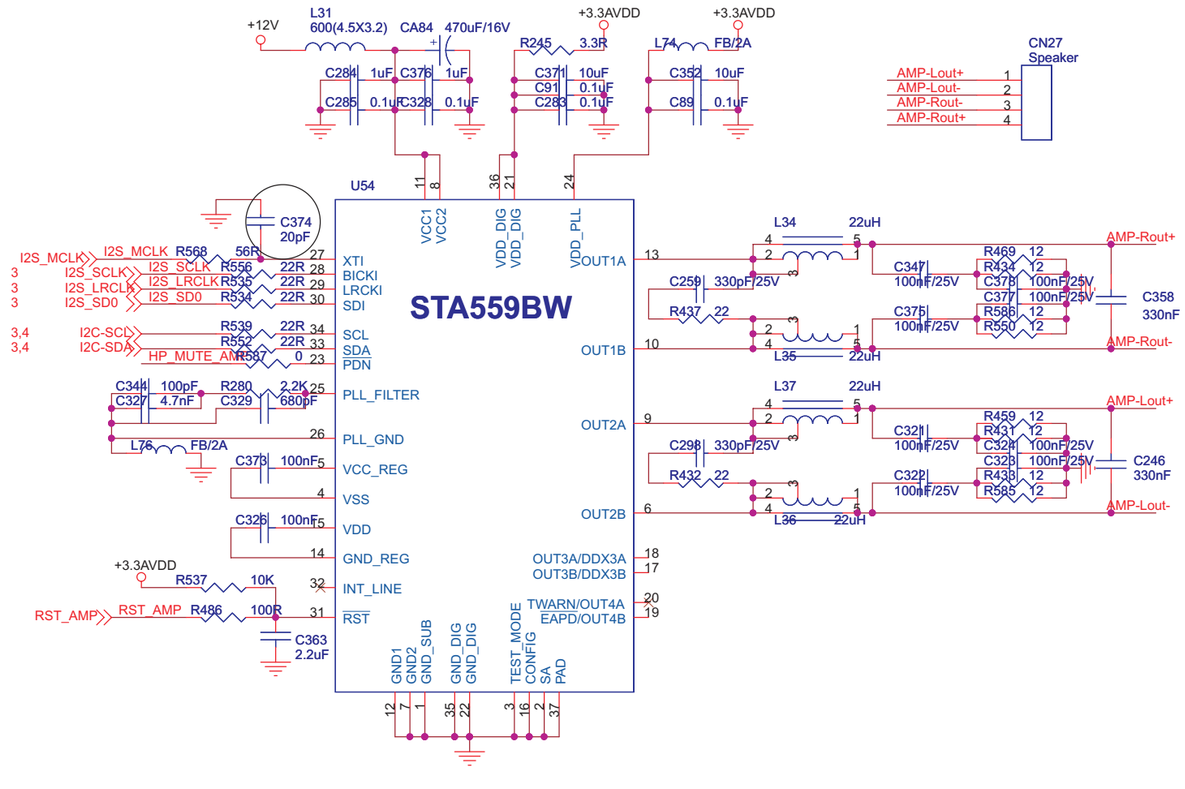
MUTE Circuit

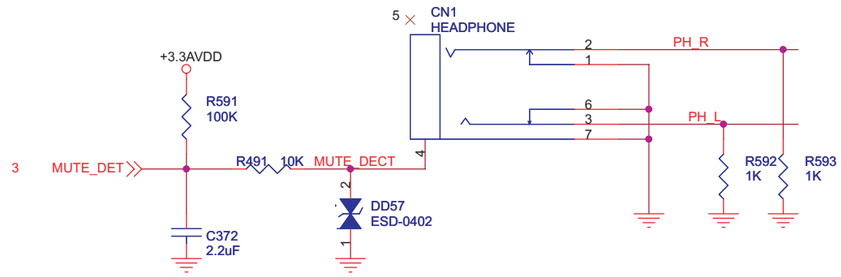


AUDIO OP

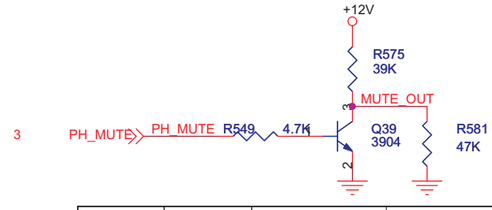








MUTE_DET: HIGH=Headphone insert



01	07/06/10		Liberação inicial	
Revisão	Data	Documento	Descrição	

Formato A3		Elaborado por: Éber Silva	Revisado por: Eduardo Macedo	Aprovado por: Thomas Wang	Modificado por:
Escala S/E	Dimensão mm	Tol.não especificada	Página 9/9	Código matriz	
PCI principal HBTV-22D02FD				Código sistema	BUSTER

Chapter 7. Measurements and Adjustments

7-1. Service Mode (Modo de Serviço)

7-1-1. Como acessar o menu de serviços

Pelo controle remoto do TV, digite as seguintes teclas na sequência:

MENU 8 8 9 3

A tela do TV aparecerá as informações como na figura abaixo.
Na última linha do menu de serviços, aparecerá a versão da placa e o modelo do painel de LCD, como por exemplo: "L_MSD209GL_PANEL_MERGE BRA MAY 13 201016.47.31".

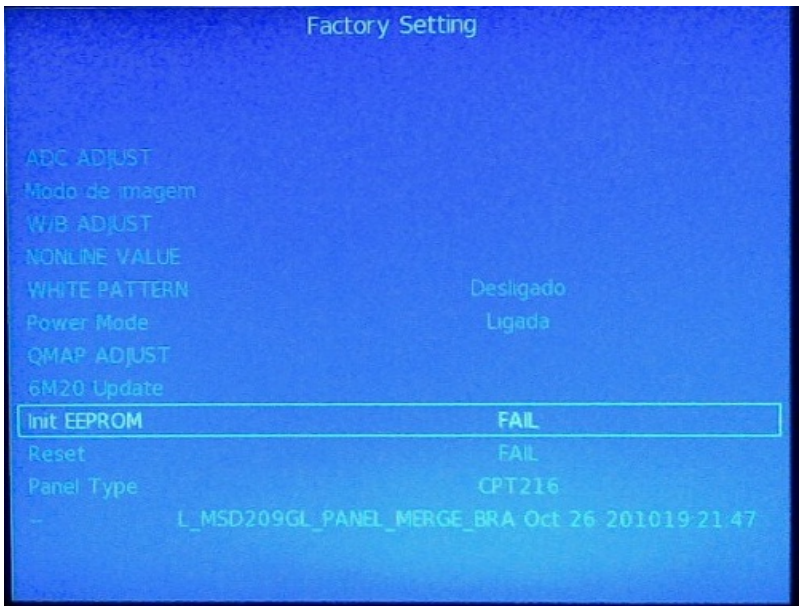


Fig. 9-1. Tela principal do menu de serviços

7-1-2. Como sair do modo de serviço

Simplesmente pressione a tecla EXIT no controle remoto do usuário ou desligue o equipamento.

ATENÇÃO!!!
Ao realizar uma atualização de software, troca da memória EEPROM ou o aparelho se mostrar instável, realize o procedimento abaixo:
Pressione os botões UP/DOWN e selecione "Init EEPROM",então pressione o botão"> ". Demorará alguns segundos para a execução.
NOTA : Após o "reset", desligue e religue o aparelho.

Chapter 8. Firmware Update (Atualização de Programa)

8-1. Initial Care (Cuidados Iniciais):

Este procedimento a seguir somente deve ser executado quando o equipamento apresentar anormalidade em sua operação, ou quando houver um comunicado oficial para realizar tal procedimento.
Não faça a atualização se o equipamento estiver funcionando corretamente.
Leia atentamente o procedimento todo e execute a tarefa conforme descrito a seguir.
Em caso de dúvidas, solicite sempre o auxílio do suporte técnico da H-Buster.

NUNCA FAÇA ESSE PROCEDIMENTO SE A REDE ELÉTRICA ESTIVER INSTÁVEL, SOB RISCO DE DANO IRREVERSÍVEL À MEMÓRIA OU MESMO A PLACA PRINCIPAL!!
RECOMENDAMOS O USO DE NO-BREAK PARA A SEGURANÇA DO EQUIPAMENTO.

8-2. Initial Procedures (Procedimentos Iniciais):

8-2-1. Needed tools (Ferramentas necessárias):

- Um pen-drive vazio e formatado (FAT32) - mínimo 512MB;
- Controle remoto do equipamento;
- Versão mais recente baixada do site de serviços.

Para obter a versão mais recente, entre no site de serviços da H-Buster e faça o download conforme o modelo do painel de LCD (se houver). Em caso de dúvidas, entre em contato com o suporte técnico.

8-2-2. How to identify the Panel Type (Como identificar o modelo de painel de LCD):

8-2-2-1. Service Mode Menu (menu do modo de serviço):

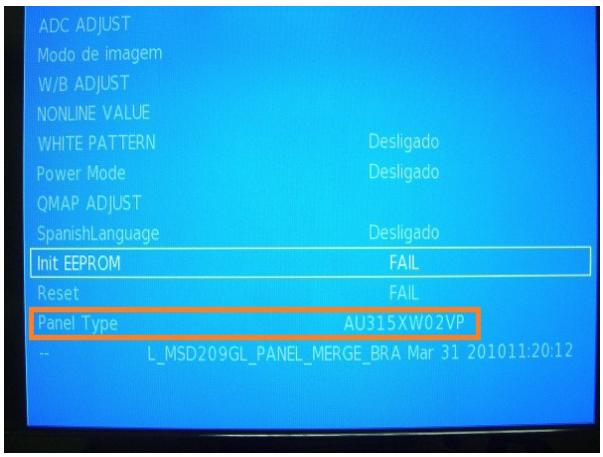


Fig. 8.1 - Identificação do painel de LCD no menu de serviços

8-2-2-2. Rear side of LCD Panel (lado traseiro do painel de LCD):

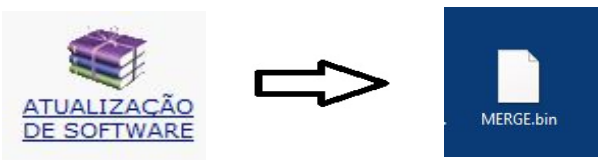
Fig. 8.2 - Identificação do painel de LCD pela etiqueta colada no verso (parte interna).

NOTA: OS EXEMPLOS APRESENTADOS ACIMA SÃO MERAMENTE INFORMATIVOS. SEMPRE EXECUTE O PROCEDIMENTO ACIMA PARA EVITAR ERROS NO PEDIDO.

8-2-3. Copying the firmware to USB Memory Key (copiando o programa no pen-drive):

O arquivo que está no site de serviços está “zipado (compactado).” Para descompactá-lo, é necessário ter instalado em seu computador um programa descompactador (ex.: Winzip, WinRAR, etc.) Salve no desktop e descompacte-o no PC. Se o programa descompactador criar uma pasta, abra a pasta e copie para o pen-drive o arquivo que está dentro da pasta (NÃO COPIE A PASTA TODA).

O nome do arquivo a ser copiado para o pen-drive NÃO DEVE SER ALTERADO, CASO CONTRÁRIO O TV NÃO IRÁ RECONHECER O ARQUIVO!



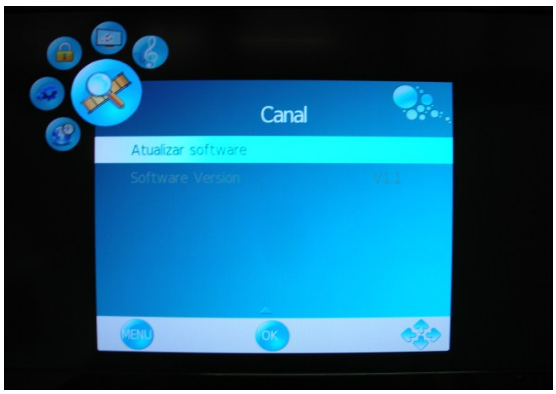
8-3. Updating the firmware (Atualizando o programa):

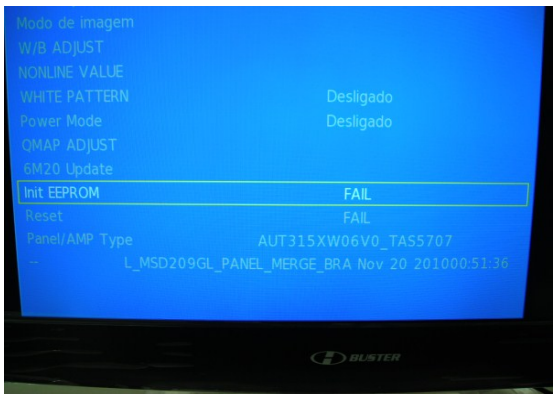
Siga os procedimentos abaixo atentamente:

1) Com o TV funcionando, conecte o pen-drive com o prgrama gravado, na porta USB;
2) Aperte a tecla MENU do controle remoto e vá até a opção CANAL com as teclas de navegação e aperte OK;
3) Dentro do menu CANAL, desça até a página seguinte onde aparecerá "Atualizar Software" e aperte OK;
4) Aparecerá na tela a pergunta de confirmação, confirme e aperte OK;
5) Aguarde até o final da atualização, onde o equipamento desligará e religará sozinho;
6) Entre no menu de serviços e faça a reinicialização da memória com o comando INIT EEPROM (consulte o capítulo 7 para maiores detalhes).

8-4. Firmware Update Diagram (Diagrama da atualização de programa):

Confira o funcionamento completo do TV (sinal digital, entradas HDMI, Video Componente, AV, etc.)

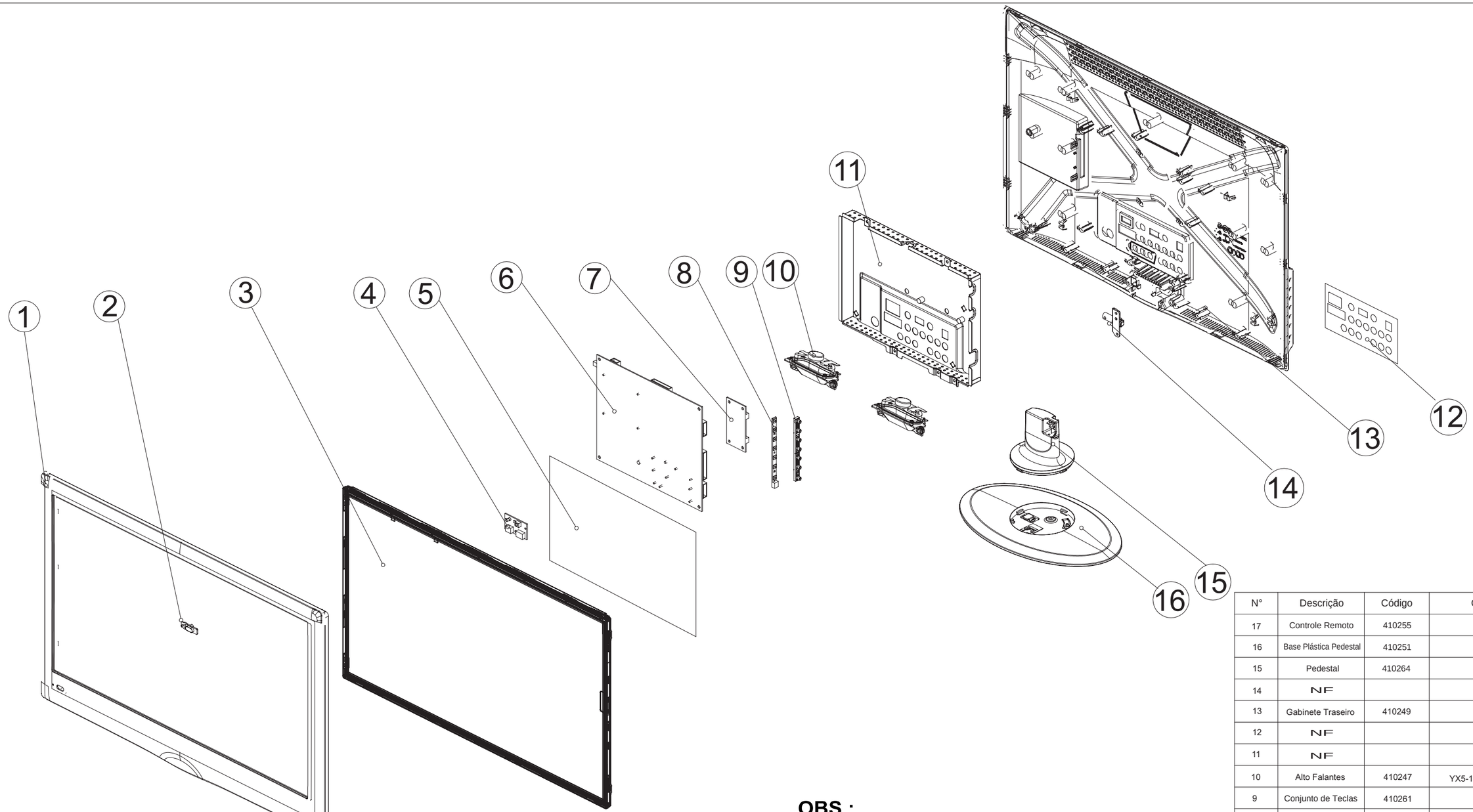




Chapter 9. Exploded View and Parts List

9-1. Exploded View

(See next page)



N°	Descrição	Código	Obs.	Qtd.
17	Controle Remoto	410255		1
16	Base Plástica Pedestal	410251		1
15	Pedestal	410264		1
14	NF			
13	Gabinete Traseiro	410249		1
12	NF			
11	NF			
10	Alto Falantes	410247	YX5-13U-5W-4Ω	2
9	Conjunto de Teclas	410261		1
8	PCI Teclado	410260		1
7	PCI Inversora	410254		1
6	Placa Principal	410253 (***)	VERSÃO 1 (CHASSIS MSD209)	1
6	Placa Principal		VERSÃO 2 (CHASSIS MTK5363)	1
4	PCI Sensor IR	410262		1
3	Tela Cristal Líquido	410252 (***)	CLAA215FA04	1
2	NF			1
1	Painel Frontal	410248		1

OBS.:

OS ITENS MARCADOS COM (***) SOMENTE PODEM SER SOLICITADOS MEDIANTE CONSULTA AO SUPORTE TÉCNICO.

OS ITENS MARCADOS COMO "NF" NÃO SÃO FORNECIDOS.

O ITEM 6 (PLACA PRINCIPAL) POSSUEM DUAS VERSÕES.

AO FAZER O PEDIDO DESTA, PRESTE ATENÇÃO AO CÓDIGO DA PEÇA!

01	24/02/11		Liberação inicial	
Revisão	Data	Documento	Descrição	

Formato A3		Elaborado por: Éber Silva	Revisado por: Li Jiaxin	Aprovado por: Eduardo Macedo	Modificado por:
Escala S/E	Dimensão mm	Tol.não especificada	Página 1/1	Código matriz	BUSTER®
Vista explodida HBTV-22D02FD				Código sistema	

9-2. Parts List

HBTV-22D02FD LISTA DE PEÇAS

CODIGO	DESCRIÇÃO
410245	EMBALAGEM HBTV-22D02LED
410246	SACO EPE 700*670MM HBTV-22D02LED
410247	ALTO FALANTE YX5-13U-5W-4Ω HBTV-22D02LED
410248	PAINEL FRONTAL HBTV-22D02LED
410249	GABINETE TRASEIRO HBTV-22D02LED
410250	CONJUNTO DE CALÇOS HBTV-22D02LED
410251	BASE PLASTICA PEDESTAL HBTV-22D02LED
410252 (***)	TELA CRISTAL LIQUIDO CLAA215FA04
410253	PLACA PRINCIPAL HBTV-22D02LED
410254	PCI INVERSORA HBTV-22D02LED
410255	CONTROLE REMOTO HBTV-22D02LED
410256	CABO TJC3-7P HBTV-22D02LED
410257	CABO LVDS HBTV-22D02LED
410258	CABO FLAT HBTV-22D02LED
410259	FONTE HBTV-22D02LED
410260	PCI TECLADO HBTV-22D02LED
410261	CONJUNTO DE TECLAS HBTV-22D02LED
410262	PCI SENSOR INFRA HBTV-22D02LED
410264	PEDESTAL HBTV-22D02LED
410263	MANUAL HBTV-22D02LED

OBS.: OS ITENS MARCADOS COM (***) SOMENTE PODEM SER SOLICITADOS MEDIANTE CONTATO COM O SUPORTE TÉCNICO.